

Appl. No. 10/027,647
Atty Docket No. AA511
Response dated August 23, 2004
Reply to Office Action dated May 21, 2004

REMARKS

I. Introduction.

Claims 1-8 and 12-18 are pending and stand rejected. Claims 9-11, 19 and 20 have been cancelled.

II. The 35 U.S.C. Section 102(b) Rejections.

A. The Rejection of Claims 14 and 19 as being anticipated by Root et al.

Claims 14 and 19 have been rejected under 35 U.S.C. Section 102(b) as being anticipated by U.S. Patent 5,870,790 issued to Root et al. (hereinafter "Root"). With regards to Claim 19, Applicants note that this claim has been cancelled with this response. Therefore, this rejection, with respect to Claim 19, is moot. Applicants respectfully traverse this rejection as it relates to claim 14 since all elements of the claimed invention are not disclosed by Root. Specifically, Root does not disclose "a scrubbing surface comprising a nonwoven material," as required by Applicants.

Root does not disclose a nonwoven material. The rejection states that "the bristles of a brush (50-54) are a NONWOVEN material." Applicants contend that this interpretation of "nonwoven" does not comply with the plain meaning of the word "nonwoven" as given to it by those of ordinary skill in the art (see MPEP 2111.01). The International Organization for Standardization, in ISO 9092:1988, defines "Nonwoven" as:

A manufactured sheet, web or batt of directionally or randomly orientated fibres, bonded by friction and/or cohesion and/or adhesion, excluding paper and products which are woven, knitted, tufted, stitchbonded incorporating binding yarns or filaments, or felted by wet-milling, whether or not additionally needled.

This definition is cited broadly in the industry as the standard definition for "Nonwoven" (see Attachments I-III of webpages from EDANA – European Disposables and Nonwovens Association, Textiles Intelligence and PGI, that all use this definition). Applicants respectfully contend the brush bristles disclosed by Root are not considered "a nonwoven material" by those of ordinary skill in the art. In addition, Root does not disclose any other material that would be considered a nonwoven. As

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a result, Applicants contend that Claim 14 is novel and that the rejection under 35 U.S.C. 102(b) should be withdrawn.

B. The Rejection of Claims 9-11 as being anticipated by Brown.

Claims 9-11 have been rejected under 35 U.S.C. Section 102(b) as being anticipated by U.S. Patent 3,629,893 issued to Brown (hereinafter "Brown"). Applicants note that claims 9-11 have been cancelled with this response. Therefore, this rejection is moot.

C. The Rejection of Claims 9-11 as being anticipated by Stima et al.

Claims 9-11 have been rejected under 35 U.S.C. Section 102(b) as being anticipated by U.S. Patent 4,793,019 issued to Stima et al. (hereinafter "Stima"). Applicants note that claims 9-11 have been cancelled with this response. Therefore, this rejection is moot.

D. The Rejection of Claims 14, 19 and 20 as being anticipated by deBlois et al.

Claims 14, 19 and 20 have been rejected under 35 U.S.C. Section 102(b) as being anticipated by U.S. Patent 5,978,999 issued to deBlois et al. (hereinafter "deBlois"). With regards to Claims 19 and 20, Applicants note that these claims have been cancelled with this response. Therefore, this rejection, with respect to Claims 19 and 20, is moot. Applicants respectfully traverse this rejection as it relates to claim 14 since all elements of the claimed invention are not disclosed by deBlois. Specifically, deBlois does not disclose "a scrubbing surface comprising a nonwoven material," as required by Applicants.

As discussed above, the bristles of a brush are not a "nonwoven" material as the term is understood by one skilled in the art. The pad disclosed in deBlois is also not a nonwoven material. As a result, Applicants contend that Claim 14 is novel and that the rejection under 35 U.S.C. 102(b) should be withdrawn.

III. The 35 U.S.C. Section 103(a) Rejections.

A. The Rejection of Claims 1, 5-8, 12 and 13 over deBlois in view of Stima

Claims 1, 5-8, 12 and 13 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over deBlois, et al. in view of Stima. Applicants respectfully traverse this rejection. The combination of deBlois and Stima does not establish a *prima facie* case of obviousness

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because the combination of references would not have given a reasonable expectation of success. Therefore, Applicants contend that the claimed invention is unobvious and that the rejection should be withdrawn.

The combination of deBlois and Stima would not have given a reasonable expectation of success and therefore, does not establish a *prima facie* case of obviousness (see MPEP 2143.02). deBlois discloses a powered scrubbing device with a circular, rotating head. Stima discloses a rectangular device designed to clip onto a traditional manual sponge mop. Applicants submit that rectangular shaped device of Stima could not be clipped to deBlois' device and allow it to function effectively. Furthermore, it would not be a simple or obvious matter to redesign the device of Stima to function on a circular rotating head. Stima's device is intended to clip over a sponge. It would not clip over deBlois' brush bristles. Even if it could be clipped to deBlois' pad, it is not obvious how such a device could be clipped to the head tight enough to provide any scrubbing power while still being removable. Therefore, Applicants contend that there is no reasonable expectation that combining the Stima device and the deBlois device would produce a successful scrubbing device. Since a *prima facie* case of obviousness has not been established, Applicants respectfully contend that this rejection should be withdrawn.

B. The Rejection of Claims 1-3 and 5-8 over Root in view of Strominski and Stima.

Claims 1-3 and 5-8 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Root in view of U.S. Patent 3,128,489 issued to Strominski (hereinafter "Strominski") and Stima. Applicants respectfully traverse this rejection. The combination of Root, Strominski and Stima does not establish a *prima facie* case of obviousness because the combination of references would not have given a reasonable expectation of success. Therefore, Applicants contend that the claimed invention is unobvious and that the rejection should be withdrawn.

The combination of Root, Strominski and Stima would not have given a reasonable expectation of success and therefore, does not establish a *prima facie* case of obviousness (see MPEP 2143.02). Both Root and Strominski disclose powered scrubbing devices with a circular, rotating head. The head of the Root device is some variety of brush. The Strominski device uses a steel wool pad. Stima discloses a rectangular device designed to clip onto a traditional manual sponge mop. It is unlikely that the rectangular device of Stima could be successfully clipped to either of these devices. Further, Applicants submit that such an arrangement would not allow either the Root or the Strominski device to function effectively. As discussed above, it would not be a simple or obvious matter to redesign the device of Stima to function on a circular rotating head. Even if it could be clipped to Strominski's pad, it is not obvious how such a

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device could be clipped to the head tight enough to provide any scrubbing power while still being removable. Therefore, Applicants contend that there is no reasonable expectation that combining the Stima device, the Root device and the Strominski device would produce a successful scrubbing device. Since a *prima facie* case of obviousness has not been established, Applicants respectfully contend that this rejection should be withdrawn.

C. The Rejection of Claims 1 and 4-8.

Claims 1 and 4-8 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over U.S. Patent 5,649,334 issued to Henriquez et al. (hereinafter "Henriquez") in view of Brown. Applicants respectfully traverse this rejection. The combination of Henriquez and Brown does not establish a *prima facie* case of obviousness because it does not teach or suggest all of Applicants' claim limitations. Therefore, Applicants contend that the claimed invention is unobvious and that the rejection should be withdrawn.

The combination of Henriquez and Brown does not teach or suggest all of Applicants' claim limitations and therefore, does not establish a *prima facie* case of obviousness (see MPEP 2143.03). Specifically, neither reference teaches or suggests the "scrubbing surface comprising a nonwoven material" claimed by Applicants. The scrubber head of Henriquez is either a brush or a sponge. Neither of these materials are nonwovens. Brown discloses a sponge. Again, this is not a "nonwoven," as the term is understood by one of ordinary skill in the art. Therefore, the combination of Henriquez and Brown does not teach or suggest all of the limitations of Applicants' claims 1 and 4-8. Since a *prima facie* case of obviousness has not been established, Applicants respectfully contend that this rejection should be withdrawn.

D. The Rejection of Claim 14 over Lancaster in view of deBlois.

Claim 14 has been rejected under 35 U.S.C. Section 103(a) as being unpatentable over U.S. Patent 4,299,004 issued to Lancaster et al. (hereinafter "Lancaster") in view of deBlois. Applicants respectfully traverse this rejection. The references do not establish a *prima facie* case of obviousness for two reasons. First, one skilled in the art would not be motivated to combine Lancaster with deBlois. Second, even if the references were combined, they still do not teach or suggest all of Applicants' claim limitations. Therefore, Applicants contend that the claimed invention is unobvious and that the rejection should be withdrawn.

One skilled in the art would not be motivated to combine the battery powered device of deBlois with the device of Lancaster and therefore, a *prima facie* case of obviousness is not established (see MPEP 2143.01). Lancaster clearly states that it is an object of the invention to

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provide a tool that is "adapted to be continuously connected with the source of house current" (see Col. 2, lines 20-24). Lancaster further describes the undesirability of battery powered devices:

As can be fully appreciated by those who have had an opportunity to work with rechargeable battery operated devices, the inconvenience attributable to the requirement that such devices must be recharged after usage often impairs their utility, particularly where the work is heavy duty in nature and the device must be used on a more or less continuous basis. (Col. 1, lines 49-55)

deBlois, on the other hand, is obviously a battery powered device. Lancaster clearly teaches away from such devices. Therefore, one skilled in the art would not be motivated to combine these references.

Even if the references were combined, they still would not teach or suggest all of the limitations of the claimed invention and therefore, a *prima facie* case of obviousness is not established (see MPEP 2143.03). As discussed above, deBlois does not teach or suggest the nonwoven material claimed by Applicants. However, Lancaster does not supply this missing element. Lancaster teaches a variety of materials for the polishing pads, including felt. However, the definition of "nonwoven" excludes fibers felted by wet-milling. Therefore, Lancaster also does not disclose nonwovens. Since a *prima facie* case of obviousness has not been established, Applicants respectfully contend that this rejection should be withdrawn.

E. The Rejection of Claims 1, 5-8 and 15-18.

Claims 1, 5-8 and 15-18 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Lancaster in view of deBlois and Stima. Applicants respectfully traverse this rejection. The references do not establish a *prima facie* case of obviousness for two reasons. First, one skilled in the art would not be motivated to combine Lancaster with deBlois for the reasons explained above. Secondly, the combination of references would not have given a reasonable expectation of success. Therefore, Applicants contend that the claimed invention is unobvious and that the rejection should be withdrawn.

As explained above, the device of Stima could not be clipped to a circular rotating head with a reasonable expectation of success. Both deBlois and Lancaster disclose such rotating devices. The rectangular shaped device of Stima could not be clipped to either deBlois' device or Lancaster's device and allow it to function effectively. Since a *prima facie* case of obviousness has not been established, Applicants respectfully contend that this rejection should be withdrawn.

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IV. Summary.

In view of the foregoing, reconsideration of the rejections and allowance of all claims are respectfully requested.

Respectfully submitted,
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Attachments

ATTACHMENT I

Definition

What are Nonwovens?

Nonwovens are unique engineered fabrics offering cost effective solutions for an increasingly wide variety of applications.

Nonwovens are products with many different qualities. Products that you use every day. Often without knowing it. Products whose outstanding qualities are frequently hidden from view. Products of a startling versatility. We are talking about a material with a fabric like structure. A material that can be combined with other materials.

Nonwovens are a product for our time, created by a modern and innovative industry.

A definition of Nonwovens exists as an ISO standard - ISO 9092: 1988 & as a CEN Standard EN 29092.

Definition of nonwovens ISO 9092: 1988 (extract)

- **Nonwoven:**

A manufactured sheet, web or batt of directionally or randomly orientated fibres, bonded by friction, and/or cohesion and/or adhesion, excluding paper (see note) and products which are woven, knitted, tufted, stitch-bonded incorporating binding yarns or filaments, or felted by wet-milling, whether or not additionally needled.

The fibres may be of natural or man-made origin. They may be staple or continuous filaments or be formed in situ.

- **Note:**

To distinguish wetlaid nonwovens from wetlaid papers, a material shall be regarded as a nonwoven if

- a. more than 50% by mass of its fibrous content is made up of fibres (excluding chemically digested vegetable fibres) with a length to diameter ratio greater than 300;

or, if the conditions in a) do not apply, then

- b. if the following conditions are fulfilled:

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ATTACHMENT II

Textiles Intelligence

Business and market analysis
for the world's fibre, textile
and apparel industries



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in Terms

in Terms & Definitions

A B C D E F G H I J K L M N O P Q R S T U V W Y

Nanotechnology:

research and technology development at the atomic, molecular or macromolecular levels (in the 1-100 nanometer range) aimed at creating and using materials which have novel properties and functions.

Needlebonding:

see needlepunching.

Needlefelting:

see needlepunching.

Needlepunching:

a process for making a nonwoven textile in which a continuous mat of randomly laid fibres or filaments is entangled with barbed needles. This causes matting and the production of a "felt" textile.

Needling:

see needlepunching.

Nep:

a small knot of entangled fibres commonly regarded as a fault but sometimes introduced as an effect.

Nip:

a line or area of contact or proximity between two contiguous surfaces which move so as to compress and/or control the velocity of textile material passed between them.

Noil:

shorter fibres separated from longer fibres in combing.

Nonwoven:

(according to ISO 9092:1988) a manufactured sheet, web or batt of directionally or randomly orientated fibres, bonded by friction and/or cohesion and/or adhesion, excluding paper and products which are woven, knitted, tufted, stitchbonded incorporating binding yarns or filaments, or felted by wet-milling, whether or not additionally needled.

Nonwoven geotextile:

a geotextile in the form of a manufactured sheet, web or batt of directionally or randomly orientated fibres, filaments or other elements, mechanically and/or thermally and/or chemically bonded.



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ATTACHMENT III**Technologies**

- Web Formation
- Web Bonding
-
- Finishing Treatments**
- Raw Materials
- APEX Fabrics™
- Pictures

**Technologies****What are nonwovens?**

Nonwovens are unique engineered fabrics offering cost effective solutions for increasingly wide variety of applications. A more formal definition of "nonwovens" is:

A manufactured sheet, web or batt or directionally or randomly oriented bonded by friction, and/or cohesion and/or adhesion, excluding paper products which are woven, knitted, tufted, stitchbonded incorporating to yarns or filaments, or felted by wet milling, whether or not additionally

The fibres may be of natural or man-made origin and may be staple or continuous filaments.

How nonwovens are made?

The production of nonwovens can be described as taking place in three stages. Modern technology allows an overlapping of the stages. In some cases all three can take place at the same time.

The three stages are:

- Web formation**
- Web bonding**
- Finishing treatments**

The opportunity to combine different raw materials and different techniques for the diversity of the industry and its products. This diversity is enhanced by the ability to engineer nonwovens to have specific properties and to perform specific functions.

PGI is the exclusive manufacturer of Miratec® fabrics, produced using its proprietary **APEX® fabric** advanced laser technology, which serves markets as diverse as the textile industry itself.